

Defining Competitive Advantage of Mongolian Wool Products

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ABSTRACT

The economy of Mongolia has traditionally been based on agriculture and livestock. But since democratic revolution in 1990, mining sector started to play important role in economy of Mongolia. Even though it contributes to the nation's economy remarkably, an array of adverse consequence follows this development particularly ecological imbalance. Thus government of Mongolia decided to bring improvement economy by supporting agriculture industry including cashmere and wool industry. But because of the texture of Mongolian sheep wool, it faces some difficulties to produce large amount of clothes, yet one more alternative is to manufacture quality construction insulation material based on this feature of the wool. And there is potential to sell it on international platform by doing marketing with great promotions.

KEYWORDS: competitive advantage, wool industry, insulation material

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1. INRODUCTION

The **economy of Mongolia** has traditionally been based on agriculture and livestock. Mongolia also has extensive mineral deposits: copper, coal, molybdenum, tin, tungsten, and gold account for a large part of industrial production. Soviet assistance, at its height one-third of Gross domestic product (GDP), disappeared almost overnight in 1990–91, at the time of the Collapse of the Soviet Union. Mongolia was driven into deep recession. Reform has been held back by the ex-communist MPRP opposition and by the political instability brought about through four successive governments under the DUC. Mongolia joined the World Trade Organization (WTO) in 1997. The international donor community pledged over \$300 million per year at the last Consultative Group Meeting, held in Ulaanbaatar in June 1999. Recently, the Mongolian economy has grown at a fast pace due to an increase in mining and Mongolia attained a GDP growth rate of 11.7% in 2013. However, because much of this growth is export-based, Mongolia is suffering from the global slowdown in mining caused by decreased growth in China. So the Government of Mongolia stated that another way to contribute to Nation's economy is to develop agriculture sector, particularly cashmere and wool industry which accounts for 36% of exportation except for mining sector. ULAN BATOR, Dec. 27 (Xinhua) -- The number of livestock animals in Mongolia reached 66.46 million, a record high since the nomadic country began a livestock animal census in 1918, a senior expert of the National Statistics Office said Thursday. According to the preliminary result of the nationwide census, sheep accounted for 46.0 percent of all livestock, goats accounted for 40.8 percent, cattle accounted for 6.6 percent, horses accounted for 5.9

percent and camels accounted for 0.7 percent. The cashmere industry in Mongolia has been expanding the market share significantly compared to the wool. Although there is enormous amount of resource, it lacked the production because of insufficient installment of equipment. In order to increase its production capabilities, new factories have been established in certain number of regions.

2. WOOL INDUSTRY

2.1. WORLD WOOL INDUSTRY

Global wool production is about 2 million tons per year, of which 60% goes into apparel. Wool comprises 3% of the global textile market, but its value is higher owing to dyeing and other modifications of the material.^[1] Australia is a leading producer of wool which is mostly from Merino sheep but has been eclipsed by China in terms of total weight. New Zealand (2016) is the third-largest producer of wool, and the largest producer of crossbred wool.

Australia

About 7% of Australian wool is sold by private treaty on farms or to local wool-handling facilities. This option gives wool growers benefit from reduced transport, warehousing, and selling costs. This method is preferred for small lots or mixed butts to make savings on re-classing and testing.

About 5% of Australian wool is sold over the internet on an electronic offer board. This option gives wool growers the ability to set firm price targets, reoffer passed-in wool, and offer lots to the market quickly and efficiently. This method works well for tested lots, as buyers use these results to

make a purchase. About 97% of wool is sold without sample inspection; however, as of December 2009, 59% of wool listed had been passed in from auction. Growers through certain brokers can allocate their wool to a sale and at what price their wool will be reserved. At the close of the Australian Wool Market week 25, there were 34,776 bales offered, 32,091 bales sold with a passed in rate of 7.7%. The AWEX Eastern Market Indicator (EMI) gained 55 cents closing at 1,558 cents. The Australian wool market closed out a volatile 2019 calendar year with strong gains this week, adding to the modest rises recorded last sale. The AWEX-Eastern Market Indicator added 55 cents for the series and closed the year at 1558 cents. The EMI is now 304 cents lower than this time last year, the largest calendar year fall since 2003. At this sale the market took a lead from the previous week when the EMI crept 11 cents higher. A looming three-week auction recess over Christmas, as well as a reduction in volumes this week (7,700 bales fewer than last sale and well short of the original estimate) may have contributed to buyers pushing hard to fill orders from the opening hammer. An unusual Tuesday/Wednesday rostering due to Christmas holiday logistics in the following week did little to dampen enthusiasm and Merino Fleece types jumped 50 to 60 cents clean dearer on the opening day.

New Zealand

A limited but varied offering of types ranging from Xbd hogget fleece to later season Merino types saw the market deliver sluggish returns to growers compared to the previous Christchurch sale two weeks ago. Most of the resistance came from the Asian sector with buyers purchasing only hand to mouth orders. Compared to the previous Christchurch sale 14 November Xbd fleece 31 to 35 microns were 2 to 4% cheaper with the longer length types most affected.

Xbd fleece 35 microns and stronger were largely in sellers' favour. Xbd 2nd shear was unchanged. Xbd oddments were unchanged. Mid-micron fleece was 1 to 3% cheaper on a limited offering. Merino fleece was 4 to 6% cheaper on the back of downward prices across the Tasman this week. 22% was passed in failing to reach grower reserves.

The next sale is scheduled for 5 December. NZ/US\$ rate: 0.642 compared to last sale of 0.641 held 14 November. Strong XB Market indicator this sale: 301c/kg COF Strong XB Market indicator last sale: 320c/kg COF.

Main buyers: Fuhrmann 1300 bales, NZWSI/JSB 1265, Masurel 1100, Bloch & Behrens 320, Chargeurs 250, GM 130, GS Merino 110, J Marshall 100, Curtis 75, New England 50.

2.1.1. Mongolian wool industry

Raw material production in sheep wool is about 18000 tons per year. It is possible to process wool without waste. 30% of raw materials are exported to china without processing. Wool sector's production takes 0.001% of the GDP.

Characteristic of Mongolian sheep wool: Mongolian sheep wool consists of 4 different fibers which makes Mongolian sheep wool's extraordinary value with average 20 microns. But 95 percent of the fiber is too thick. It's around 32–40 microns. Australian merino wool, in comparison, is 19 microns and thinner. Half of it is used for ger insulation, woolen shoes, carpets. The rest is exported to China. This is

changing now. The last couple of years, Mongolia has been building state-of-the art factories to process the raw wool. The main productions from wool are wool felt, carpet, woven fabrics, knitted wears and construction insulation material. 1/3 of the total wool export is carpet, 1/3 is raw material and the rest is other wooden products. Its 33% is value added products, 30% undergo primary processing and 37% is non-woven and other. One of Mongolia's largest carpet makers, Erdenet Carpets, uses a lot of wool. They export to Russia, China, Kazakhstan, Australia, Norway, US, Portugal, Italy, Germany, Turkey, Philippines, Poland, Belarus, Netherlands, Japan, Jordan. Since its establishment in 1983, it produced 23.4 million square meters of carpets, 46 percent of which was exported. Darkhan Nekhii was established in 1972 as the biggest processor of skins in Mongolia. They process around 300,000 cow hide, 1.5 million sheep and goat skins per year. They also, make ½ million leather products per annum. The current production facility occupies 1/4 of the total space of the factory. Today they export to the Netherlands, Kazakhstan, Russia, China, Italy, Spain, France, Taiwan, Thailand and Finland. Because of thickness, these are suitable for producing carpets but insulation materials can be alternative option for making the Mongolian wool reach great market.

Classification of wool

Merinos	
Diameter in microns	Name
< 15.5	Ultrafine Merino ^[8]
15.6 – 18.5	Superfine Merino
18.6 – 20	Fine Merino ^[8]
20.1 – 23	Medium Merino
> 23	Strong Merino ^[8]

Table 1

Breeds	
Breeds	Diameter
Comeback	21–26 microns, white, 90–180 mm long
Fine crossbred	27–31 microns, Corriedales, etc.
Medium crossbred	32–35 microns
Downs	23–34 microns, typically lacks luster and brightness. Examples, Aussiedown, Dorset Horn, Suffolk, etc. ^[14]
Coarse crossbred	>36 microns
Carpet wools	35–45 microns

Table 2

SOME SPECIAL ADVATAGES OF MONGOLIAN WOOL

Thermal insulation ability

The advantage of Mongolian sheep wool is its structure. In the world, only Mongolian sheep wool is coarse and each piece of fleece has a hollow tube through the core. The hair tube is filled with air, which is one of the biological advantages of providing good thermal insulation. When the humidity is high, the wool absorbs as much moisture as up to 40% of its weight and releases it as heat. One kilogram of dry wool produces 960 kilojoules of heat, which is why it is a natural source of energy. Woolen material keeps the room warm, absorbs moisture and maintains the microclimate of the room.

Fire resistance

The wool has a burning temperature of 560 ° C and does not burn so easily. The fire resistance of any material depends on the chemical structure of the raw material, and when it contains more than 30% carbon, it belongs to the group of refractory materials. 50.65% of keratin, which is the outer layer of woolen fibers, is carbon.

Noise and sound insulation, toxicity absorption

Insulation material made of wool isolates noise by 21 dB. This means that it reduces noise by 20 percent more than cotton.

Wool insulation materials absorb and disperse toxic substances, such as formaldehyde. In a formaldehyde-rich building, gas emissions dropped by 96% over 7 hours.

Comparison of wool insulation material with other materials

Indicators	Measure unit	Wool Material	Mineral cotton	Polystyrene foam panels
Thickness	mm	30	30-120	20-140
Density	kg/m ³	30-40	75-125	20-35
Thermal conductivity	Vt/m ⁰ C	0,035- 0,037	0,038-0,042	0,038-0,05
Water absorption	%	35	30	2-3
Burning time	sec	21	12	8

Table 3

2.2. THEORY OF COMPETITIVE ADVANTAGE

Competitive advantage is what makes the company or enterprise superior to other competitors by offering better value and quality on products or services. As M. Porter defines, there are two basic types of competitive advantage, which are cost advantage and differentiation advantage. Also focus is one of the advantages.

2.2.1. Competing by cost

Cost leadership means companies provide reasonable value at a lower price. Firms do this by continuously improving operational efficiency. That usually means paying their workers less. Some compensate for lower wages by offering intangible benefits such as stock options, benefits, or promotional opportunities. Others take advantage of unskilled labor surpluses. As these businesses grow, they can benefit from economies of scale and buy in bulk. Walmart and Costco are good examples of cost leadership. But sometimes they pay their workers less than the cost of living. Higher minimum wage laws threaten their advantage.

2.2.2. Competing by differentiation

Differentiation means companies deliver better benefits than anyone else. A firm can achieve differentiation by providing a unique or high-quality product. Another method is to deliver it faster. A third is to market in a way that reaches customers better.

A company with a differentiation strategy can charge a premium price. That means it usually has a higher profit margin. Companies typically achieve differentiation with innovation, quality, or customer service. Innovation means they meet the same needs in a new way.

2.2.3. Competing by focus

Focus means the company's leaders understand and service their target market better than anyone else. Their either use cost leadership or differentiation to do that. The key to a successful focus strategy is to choose a very specific target market. Often it's a tiny niche that larger companies don't serve.

3. Findings

Wool industry is listed in priority sectors of export for the government of Mongolia. The government's National Production Program 2016-2020 aims to increase the share of value-added products in the national GDP and boost the production of goods for export. The program also addresses

the supply chain development of raw materials, including wool.

This valuable material is been exported to various countries as raw material without added value. Therefore potential to earn such amount of money is obtained by those foreign importers. In the wool processing industry there are 2 factories for the production of carpets, 4 weaving factories, 8 spinning plants, 1 non-woven industry, 19 washing factories, 16 knitwear factories, 56 braiding plants, 16 felt factories, 169 felt factories and total of 291 factories.

In the wool industry capabilities: 37,000 tons of wool washing, 1700 tons of wool combing, 2440 tons of yarns, 934 thousand knitwear, 492 thousand square meters of woven, 600 thousand square meters of woolen fabric, 1.6 million square meters of carpet, 1.6 thousand square meters of non-woven fabric, 2.3 million m² of felt, 804 thousand m² of building insulation material and 2000 tons of wool fertilizer. The use of this capacity is 41 percent for washing, 51 percent for combing, 46 percent for spinning, 48 percent for knitting and weaving, 45 percent for carpets, 57 percent for nonwovens, 61 percent for felt, and 5 percent for wool insulation materials. The more production increases, the more vacancy would generate.

Also the factories and companies purchase the raw materials from the herders directly so it reduces cost.

Although most of Mongolian wool can be not fine enough to be used in clothes, this uniqueness of being thick with approximately 40 microns is another advantage for insulation material because only Mongolian sheep wool has this special quality which enables this material to become best candidate for construction insulation material. For now Australia and other competitor countries are producing construction insulation materials either. However majority percent of wool fiber from other countries is not coarse but thin and soft so that this feature makes it more suitable for manufacturing clothes. Furthermore, in some countries insulation material from natural resources particularly wool is becoming rather popular in construction field. According to this trend, Japan can be one of the reliable importers. With the help of long term cooperation in trade and economy sector, Mongolia sees that we have more opportunity to export quality and cheaper woolen insulation material to Japan.

4. Conclusion

This report aims to understand how Mongolian wool can obtain competitive advantage by producing with less waste and exporting quality and cheaper woolen products especially woolen construction insulation material. In the wool industry, supply of raw material is considered essential. Hence, the manufacturers purchase the raw material not only from the herders' hands but also from raw material collecting spots in several locations in order to have sufficient resource. It helps them facilitate cost burden and therefore also influences to decrease the price of the products. Due to the fact that majority of the wool fiber in Mongolia is coarse and thick with 40 micron, Mongolian sheep wool can be the most appropriate for making insulation material. Moreover, now the possibility to export to foreign market is being studied. And further advanced researches need to be conducted.

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